



W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

**Work Order ID 70311**

Thursday, June 02, 2011 2:52:44 PM



Page 2

Item ID: D4131-041

Accept



Setup Start



Revision ID:

Stop



Item Name: Manifold Assembly

Start Date: 6/2/2011 Start Qty: 4.00



Cust Item ID:

Required Date: 6/17/2011 Req'd Qty: 4.00



Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

130

Identify as per dwg & Stock Location: 132

0.00



Packaging

Memo

0.00

Packaging

11/6/20 5/4

140

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

11/6/20 ME  
11-06-20

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

Thursday, June 02, 2011 2:52:42 PM

Page 1

Work Order ID: 70311



Parent Item: D4131-041



Parent Item Name: Manifold Assembly




Start Date: 6/2/2011

Required Date: 6/17/2011

Start Qty: 4.00

Required Qty: 4.00

Comments: IPP Rev:A 10.10.06 new issue DD verf:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D4131-1  Front Plate		Manufactured	No		70318 x 4	100	Each	0.0000	1	4		EL 11-6-15	
D4131-3  Base		Manufactured	No		70319 x 4	100	Each	0.0000	1	4		EL 11-6-15	
D4131-5  Side Plate		Manufactured	No		70321 x 8	100	Each	0.0000	2	8		EL 11-6-15	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

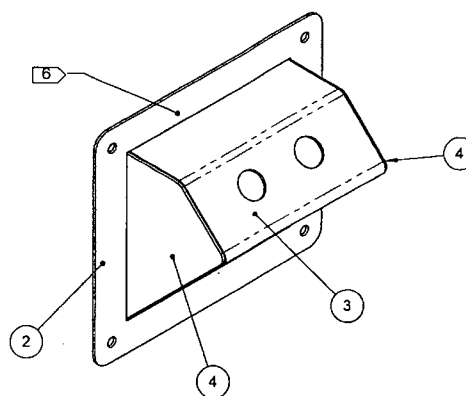
Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

ITEM	QTY -041	PART NUMBER	DESCRIPTION
1	X	D4131-041	MANIFOLD ASSEMBLY
2	1	D4131-1	FRONT PLATE
3	1	D4131-3	BASE
4	2	D4131-5	SIDE PLATE



C L 11/06/03  
WLO:70311

# D4131-041 MANIFOLD ASSEMBLY

RELEASED  
2010-09-23  
MO

## NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: PER QSI 044 6.1
- 7) WEIGHT: 0.64 lbs

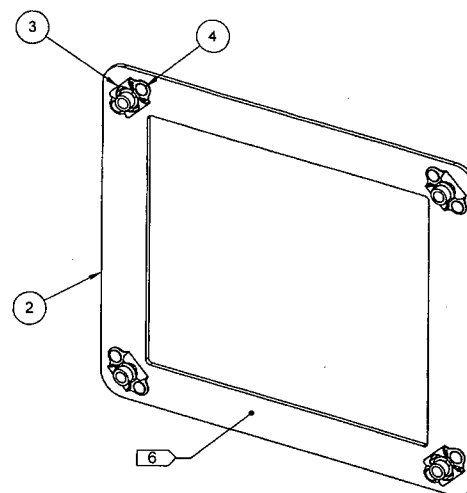
A NEW ISSUE		RF	10.09.16
REV.	DESCRIPTION	BY	DATE
DESIGN	RF		
DRAWN	RF		
CHECKED	RF		
MFG. APPR.	RF		
APPROVED	RF		
DE APPR.	RF		
DATE	10.09.16		

**DART AEROSPACE USA, INC.**  
PORT HADLOCK, WA

DRAWING NO. **D4131** REV. A  
SHEET 1 OF 8  
TITLE **MANIFOLD ASSEMBLY** SCALE NTS

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ITEM	QTY -043	PART NUMBER	DESCRIPTION
1	X	D4131-043	DOUBLER ASSEMBLY
2	1	D4131-7	DOUBLER
3	4	MS21069L3	NUT PLATE
4	8	MS20426AD3-3	RIVET



**D4131-043 DOUBLER ASSEMBLY**

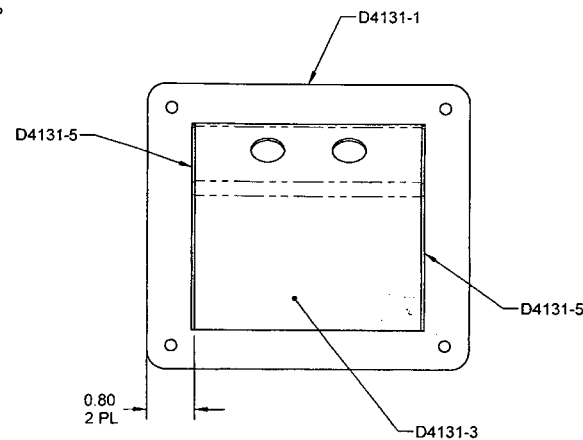
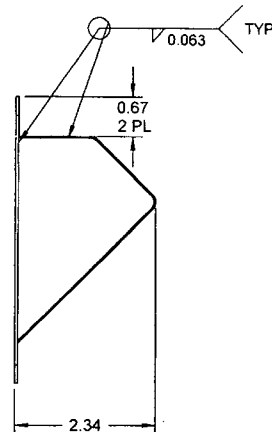
**RELEASED**  
2010-09-23  
WFO

**NOTES:**

- 1) MATERIAL: N/A
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: PER QSI 044 6.1
- 7) WEIGHT: 0.07 lbs

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MFG. APPR.	<i>RF</i>		SHEET 2 OF 8
APPROVED	<i>RF</i>	TITLE	SCALE
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# **D4131-041 MANIFOLD ASSEMBLY**

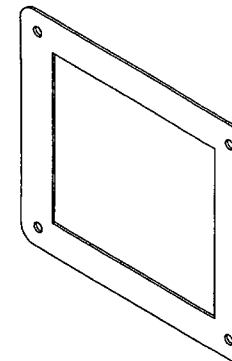
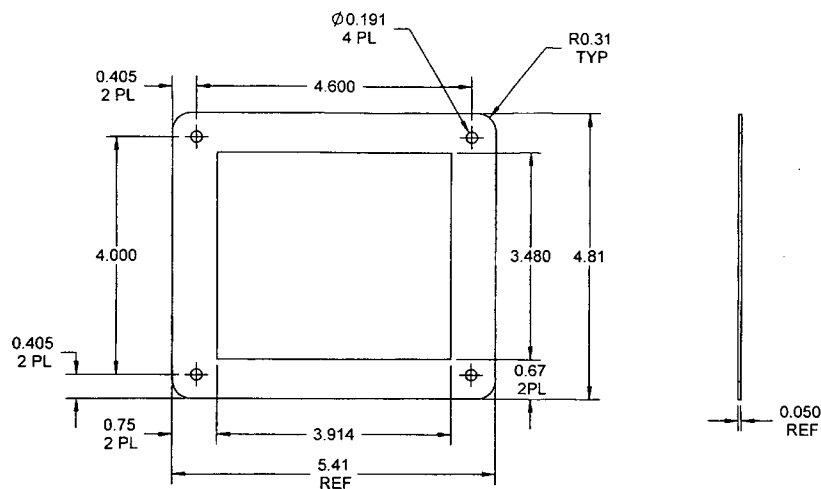
## **NOTES:**

- 1) MATERIAL: N/A
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: PER QSI 044 6.1
- 7) WEIGHT: 0.64 lbs
- 8) WELD PER DART QSI 004

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2010-09-23  
MD

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MFG. APPR.	MD	<b>D4131</b>	SHEET 3 OF 8
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DE APPR.	MD	<b>MANIFOLD ASSEMBLY</b>	NTS
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**D4131-1 FRONT PLATE**

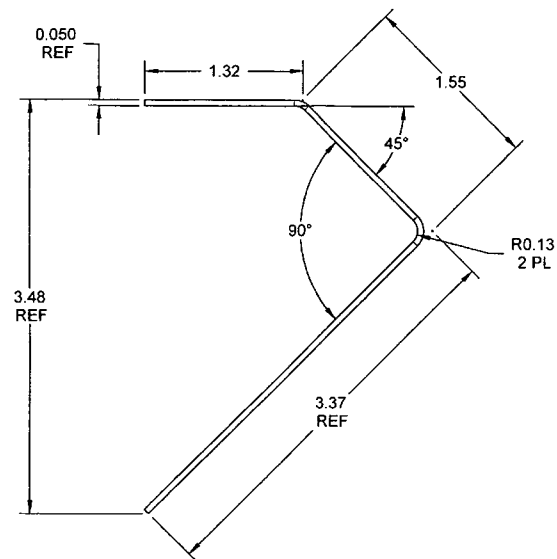
**NOTES:**

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL ANNEALED 2B FINISH 0.050 (18 GAUGE) SHEET  
PER MIL-S-5059  
OR AMS 5513 (304)  
OR AMS 5524 (316)  
OR ASTM A240  
OR ASME SA240  
PER DART SPEC. M304S18GA
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 0.18 lbs

**RELEASED**  
2010-09-23  
HWP

DESIGN	RF	<b>DART AEROSPACE USA, INC.</b> PORT HADLOCK, WA	
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CHECKED	RF	DRAWING NO. <b>D4131</b>	REV. A
MFG. APPR.	RF		SHEET 4 OF 8
APPROVED	RF	TITLE	SCALE
DE APPR.	RF	<b>MANIFOLD ASSEMBLY</b>	NTS
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**D4131-3 BASE**  
MAKE FROM D4131-3F FLAT PATTERN

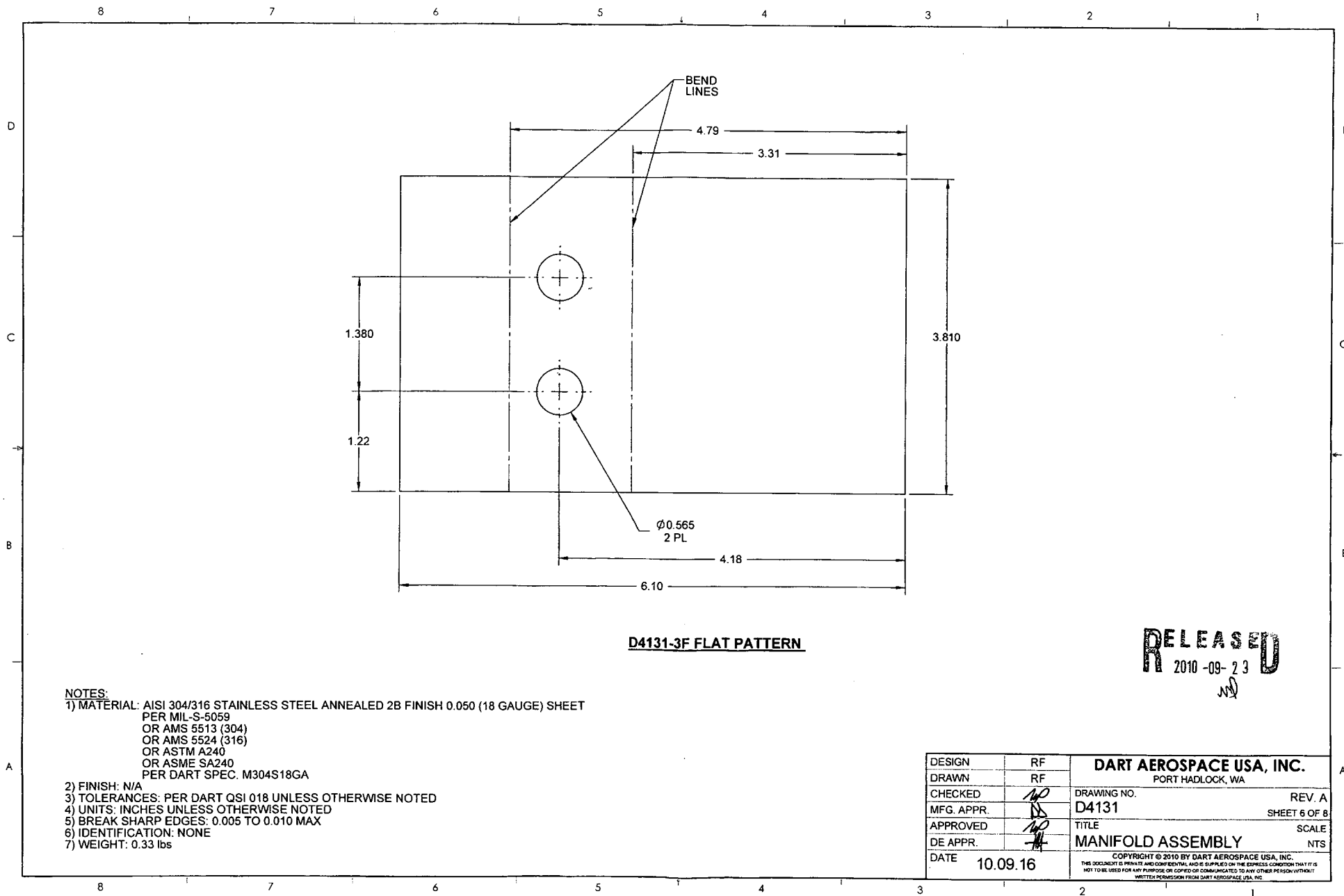
**NOTES:**

- 1) MATERIAL: MAKE FROM D4131-3F FLAT PATTERN
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 0.33 lbs

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2010-09-23

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DRAWN	RF	PORT HADLOCK, WA	
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. A
MFG. APPR.	<i>[Signature]</i>	<b>D4131</b>	SHEET 5 OF 8
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	<b>MANIFOLD ASSEMBLY</b>	NTS
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**D4131-3F FLAT PATTERN**

**NOTES:**

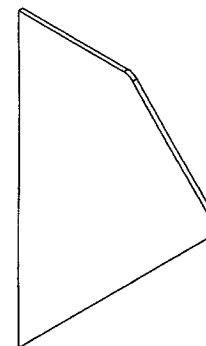
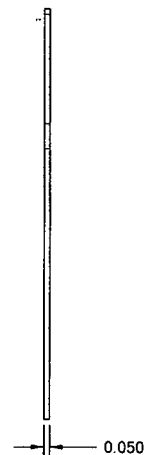
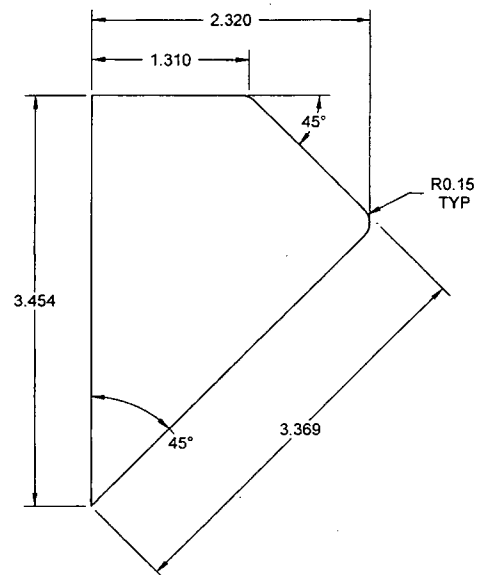
- 1) MATERIAL: AISI 304/316 STAINLESS STEEL ANNEALED 2B FINISH 0.050 (18 GAUGE) SHEET  
 PER MIL-S-5059  
 OR AMS 5513 (304)  
 OR AMS 5524 (316)  
 OR ASTM A240  
 OR ASME SA240  
 PER DART SPEC. M304S18GA
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 0.33 lbs

**RELEASED**  
 2010-09-23  
*ND*

DESIGN	RF	<b>DART AEROSPACE USA, INC.</b> PORT HADLOCK, WA	
DRAWN	RF		
CHECKED	<i>ND</i>	DRAWING NO. <b>D4131</b>	REV. A
MFG. APPR.	<i>ND</i>		SHEET 6 OF 8
APPROVED	<i>ND</i>	TITLE	SCALE
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**D4131-5 SIDE PLATE**

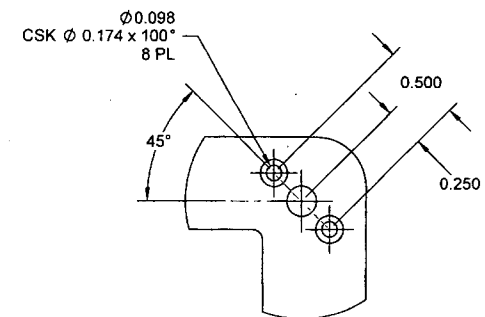
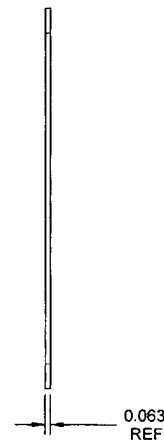
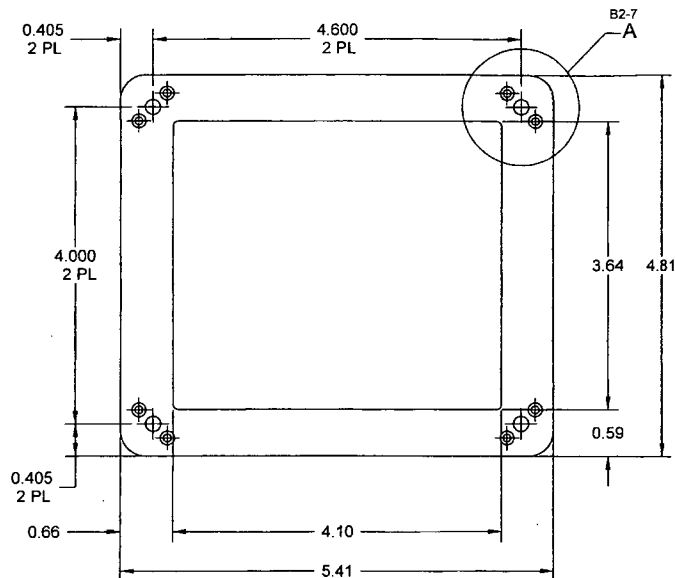
**NOTES:**

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL ANNEALED 2B FINISH 0.050 (18 GAUGE) SHEET  
PER MIL-S-5059  
OR AMS 5513 (304)  
OR AMS 5524 (316)  
OR ASTM A240  
OR ASME SA240  
PER DART SPEC. M304S18GA
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 0.07 lbs

**RELEASED**  
2010-09-23  
JMS

DESIGN	RF	<b>DART AEROSPACE USA, INC.</b> PORT HADLOCK, WA	
DRAWN	RF		
CHECKED	RF	DRAWING NO. <b>D4131</b>	REV. A
MFG. APPR.	RF		SHEET 7 OF 8
APPROVED	RF	TITLE <b>MANIFOLD ASSEMBLY</b>	SCALE NTS
DE APPR.	RF		
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DETAIL A  
TYPICAL 05-7

RELEASED  
2010-09-23  
WMM

NOTES:

- 1) MATERIAL: 6061-T6/T62 ALUMINUM SHEET 0.063 THICK  
PER QQ-A-250/11 OR AMS-QQ-A-250/11  
OR AMS 4025 OR AMS4027  
OR ASTM B209  
PER DART SPEC. M6061T6S0.063
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 0.07 lbs

D4131-7 PLATE

DESIGN	RF	DART AEROSPACE USA, INC. PORT HADLOCK, WA	
DRAWN	RF		
CHECKED	RF	DRAWING NO. D4131	REV. A
MFG. APPR.	RF	SHEET 8 OF 8	
APPROVED	RF	TITLE	SCALE
DE APPR.	RF	MANIFOLD ASSEMBLY	NTS
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